

Notice of Allowability

Application No.

10/669,638

Examiner

Rene Garcia, Jr.

Applicant(s)

SEINO ET AL.

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment Filed 09 August 2006.
2. ☒ The allowed claim(s) is/are 1-47.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


STEPHEN MEIER
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

REASONS FOR ALLOWANCE

1. Claims 1-47 are allowed.
2. The following is an examiner's statement of reasons for allowance: The primary reason for the allowance of claims 1-9, 11, 13, 14 & 15 is the inclusion of the limitations of a liquid container including a flexible member deformable in accordance with an amount or remaining liquid contained in the liquid container, a vibration activating and detecting unit provided on a first surface, a rigid member provided on a second surface, *wherein amount of remaining liquid is detected based on a vibration characteristic of vibration activating and detecting unit depending on distance and wherein distance between vibration activating and detecting unit and rigid member is not predetermine*. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 10 & 12 is the inclusion of the limitations of liquid container including bag-like flexible member, a vibration activating unit provided on a first surface, a vibration detecting unit provided on a second surface, *wherein first and second surfaces are opposite each other* and amount of remaining liquid is detected based on a vibration characteristic of vibration detecting unit. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 15-23, 25, 27, 29 & 30 is the inclusion of the limitations of liquid container including a flexible member, vibration activating and detecting

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unit provided on a first surface, rigid member provided on a second surface, *wherein first and second surfaces are opposite each other*, and amount of remaining liquid is detected based on a vibration characteristic of vibration activating and detecting unit. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 24, 26 & 28 is the inclusion of the limitations of liquid container including bag-like flexible member, vibration activating unit on a first surface, vibration detecting unit on a second surface, *wherein first and second surfaces are opposite each other* and amount of remaining liquid is detected based on a vibration characteristic of vibration detecting unit. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 31-39, 54, 43, 45 & 46 is the inclusion of the limitations of liquid container including hard outer case and ink bag, flexible member, vibration activating and detecting unit on a first surface of flexible member, rigid member on a second surface of flexible member, *wherein first and second surfaces are opposite each other* and amount of remaining liquid is detected based on a vibration characteristic of vibration activating and detecting unit. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 40, 42 & 44 is the inclusion of the limitations of liquid container including hard outer case and ink bag, flexible member, vibration

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activating unit on a first surface of flexible member, vibration detecting unit on a second surface of flexible member, *wherein first and second surfaces are opposite each other* and amount of remaining liquid is detected based on a vibration characteristic of vibration detecting unit. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

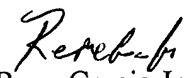
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Communication with the USPTO

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rene Garcia, Jr. whose telephone number is (571) 272-5980. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Rene Garcia Jr
10/06


STEPHEN MEIER
SUPERVISORY PATENT EXAMINER